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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,903	03/30/2004	Hiroyuki Yasuda	251310US0	1326
22850	7590	05/03/2006		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
			EXAMINER THOMPSON, CAMIE S	
			ART UNIT 1774	PAPER NUMBER

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/811,903

Applicant(s)

YASUDA ET AL.

Examiner

Camie S. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/13/04; 9/20/04; 12/8/04; 7/15/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

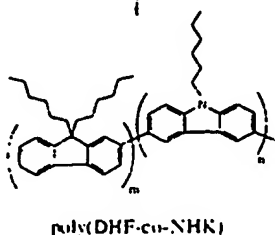
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Stephan et al., *Blue Light electroluminescent devices based on a copolymer derived from fluorene and carbazole*.

The reference discloses thin layers of poly(dihexylfluorene-co-N-hexylcarbazole)

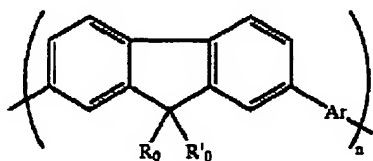


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sandwiched between indium tin oxide and aluminum electrodes. The reference reads on the instant claims when R^1 and R^4 of the reference is an alkyl group such as hexyl and $m=n=p=q=0$ of the instant claims.

3. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Kambe et al., U.S. Patent Number 6,821,649.

Kambe discloses an organic electroluminescent device comprising an anode and cathode and two or more stacked organic layers therebetween including a light emitting layer, an electron injection organic layer (see column 4, lines 28). The reference also discloses that the organic layer comprises high molecular weight EL materials such as

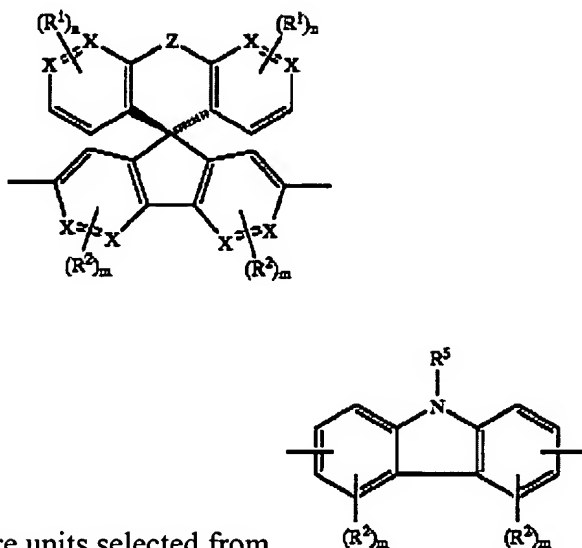


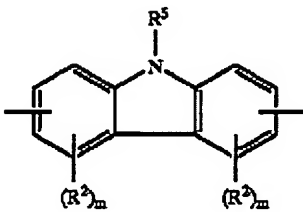
wherein Ar is an aromatic or heterocyclic group such as carbazole which may have a substituent; R_0 and R'_0 are alkyl; n is the degree of polymerization and the molecular weight is in the range of 5,000 to 3,000,000 (see column 19, lines 1-8). Additionally, column 19, lines 16-35 of the reference discloses that the high molecular weight organic layer is a light emitting layer that may be used alone or in admixture with a material such as an iridium complex. The Kambe reference reads on the instant claims when $m=n=p=q=0$.

4. Claims 7-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Becker et al., U.S. Pre Grant Publication 2005/0038223.

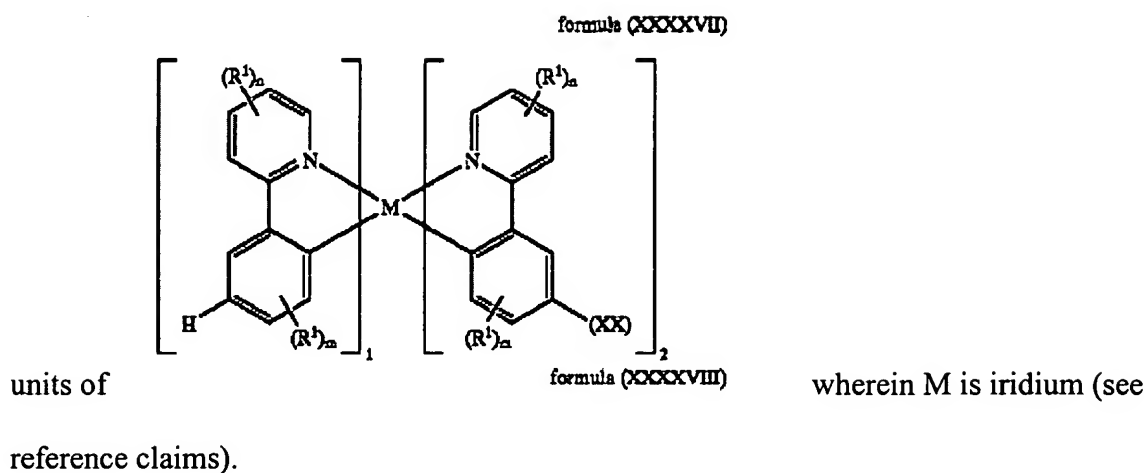
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Becker discloses novel conjugated polymers comprising spirobifluorene units and their use in optoelectronics devices or displays based on polymeric organic light emitting diodes (see paragraph 0001). Paragraph 0019 of the reference discloses conjugated polymers which comprise units of the formula I




together with one or more units selected from  wherein in Z is a single bond and m=n=0, R⁵ is an alkyl group. Paragraph 0086 of the reference discloses that the polymer exhibits charge injection and transport properties. Paragraph 0153 of the reference discloses that the polymer light emitting device having one or more active layers of which at least comprises one or more polymers according to formula I wherein the active layer can be a light emitting layer and/or transport layer and/or charge injection layer. Also, paragraph 0144 of the reference discloses that the polymer can be in a solution. Also, the reference discloses that one of the other conjugated polymers can comprise units of formula 1 together with one or more

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Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena L Dye, can be reached at (571) 272-3186. The fax phone number for the Group is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


 RENA DYE
 SUPERVISORY PATENT EXAMINER
 A.U. 1774 4/28/04